

ENGINEERING EXHIBIT

Incentive Auction Channel Reassignment

Application for Modification of Digital Class A Television Station Construction Permit

prepared for

Gray Television Licensee, LLC

WSVF-CD Harrisonburg, VA

Facility ID 190915

Ch. 36 (digital) 15 kW

Gray Television Licensee, LLC (“Gray”) is the licensee of Class A television station WSVF-CD, Channel 43, Facility ID 190915, Harrisonburg VA. Reassignment of WSVF-CD from Channel 43 to Channel 36 was specified in the *Incentive Auction Closing and Channel Reassignment Public Notice (“CCRPN”*, DA 17-317, released April 13, 2017). *Gray* herein proposes modification of the WSVF-CD Channel 36 Construction Permit (“CP”, file# 0000034406), which presently authorizes operation with 15 kW effective radiated power (“ERP”) and a directional antenna. *Gray* herein seeks a minor modification of the CP to specify an alternate directional antenna and associated pattern. No change in site location, antenna height, or maximum ERP is sought.

As with the current authorization, the proposed Channel 36 operation will employ a replacement antenna to be installed on the WSVF-CD tower in lieu of the existing Channel 43 antenna. The overall structure elevation is less than 61 meters above ground and passes the FCC’s TOWAIR program for the transmitter location, thus FCC antenna structure registration is not necessary. No change to the overall structure height will result.

The WSVF-CD site is located within the quiet zone area specified in §73.1030(a) requiring coordination with National Radio Astronomy Observatory (“NRAO”) at Green Bank, WV. The existing WSVF-CD Channel 36 CP was coordinated with NRAO. The alternate directional antenna specified herein provides suppression towards NRAO and complies with the power limit identified by NRAO in the direction of the Green Bank Telescope. A detailed

description of the technical details of this proposal is being supplied to NRAO for review. Upon receipt of NRAO's formal concurrence, an amendment to this application will be submitted to include the letter of concurrence.

The proposed antenna is an ERI model ETU4U7-ETP4O-34/36 having elliptical polarization. The ERP is 15 kW using a "full service" out of channel emission mask. A plot of the directional antenna's azimuthal pattern is supplied in Figure 1.

Figure 2 depicts the 51 dBμ coverage contour of the authorized and proposed facilities, demonstrating compliance with §73.3572 for a minor change. The presently authorized WSVF-CD 51 dBμ contour extends beyond that of the *CCRPN* facility and resulted from a minor modification application filed during the second filing window.¹ The modification sought herein provides a 51 dBμ contour which does not exceed that of the present authorization. Therefore, the proposal complies with the FCC's contour expansion "freeze" Public Notice² of April 5, 2013 (DA 13-618) to the extent it may be applicable to reassigned stations such as WSVF-CD.

Interference study per OET Bulletin 69³ shows that the proposal complies with the FCC's interference protection requirements toward all post-auction digital television and Class A television stations, as well as existing and previously proposed television translator and low power television stations. The results, summarized in Table 1, show that any new interference does not exceed the FCC's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations) to any facility.

¹Public Notice "*Incentive Auction Task Force and Media Bureau Announce the Opening of the Second Filing Window for Eligible Full Power and Class A Television Station—October 3 Through November 2, 2017*" DA 17-911, released September 20, 2017.

²"*Media Bureau Announces Limitations on the Filing and Processing of Full Power and Class A Television Station Modification Applications, Effective Immediately, and Reminds Stations of Spectrum Act Preservation Mandate*," DA 13-618, Public Notice, released April 5, 2013.

³FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 1 km cell size, and 1 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 16 percent antenna relative field in downward elevations (antenna elevation pattern data shows 16 percent relative field or less for angles 15-90 degrees below the horizontal), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $38.4 \mu\text{W}/\text{cm}^2$, which is 9.5 percent of the general population/uncontrolled maximum permitted exposure limit. A summary is provided below of RF signal density calculations that consider other authorized broadcast emitters that are co-located or near enough to be significant emitters.

Summary of Radiofrequency Electromagnetic Field Calculations

Facility	Channel	ERP (kW)	Polarization	Relative Field	Distance (meters)	S - Calculated ($\mu\text{W}/\text{cm}^2$)	S - Limit ($\mu\text{W}/\text{cm}^2$)	Percent of Limit
WSVF-CD Proposed CP-MOD	36	15	E (V=27%)	0.16	20.6	38.4	403.3	9.5%
WHSV-TV Proposed DTDRT mod	34	15	E (V=30%)	0.15	20.6	34.5	395.3	8.7%
W30CT-D Lic BLDTT-20110512AAN	30	15	H	0.2	20.6	47.2	379.3	12.5%
WACL(FM) BLH-19890315KB	253B1	0.9	C	1	60	16.7	200	8.4%
W300CN BLFT-20160526ABM	300	0.25	V	1	60	2.3	200	1.2%
Total Calculated Signal Density:								40.3%

ERP: Effective Radiated Power
 Polarization: C – Circular; E – Elliptical; H-Horizontal; V - Vertical
 Field: Elevation Pattern Relative Field Value (1.0 worst-case assumed for FM stations)
 Distance: Distance to radiation center (slant distance if not co-located with proposal)
 S-Calc: OET Bulletin 65 calculated value of signal density at two meters above ground level
 S-Limit §1.1310 occupational/controlled limit for signal density

This analysis shows that the total maximum calculated RF density at two meters above ground level near the WSVF-CD site will be 40.3 percent of the FCC's uncontrolled / general population maximum permissible exposure limit. The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field

exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No increase in structure height is proposed.

List of Attachments

Figure 1	Antenna Azimuthal Pattern
Figure 2	Coverage Contour Comparison
Table 1	TVStudy Analysis of Proposal
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	March 29, 2019	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600

Azimuth Pattern

Type:	ETUP40-H	Polarization:	Horizontal
Directivity:	1.53 numeric (1.85 dB)	Frequency:	36 (ATSC)
Peak(s) at:		Location:	Harrisonburg, VA
		NOTE: Pattern shape and directivity may vary with channel and mounting configuration.	

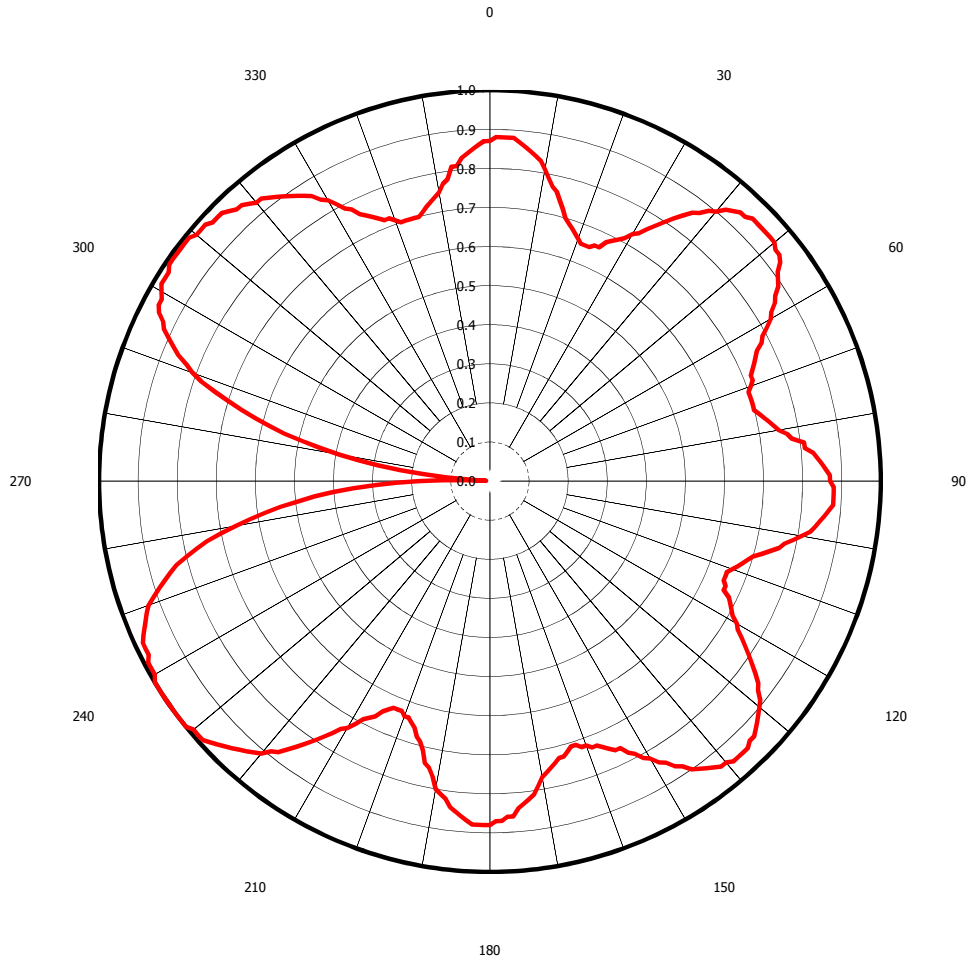
Relative FieldELECTRONICS RESEARCH, INC. **ERI**

Figure 1
Antenna Azimuthal Pattern
WSVF-CD Harrisonburg, VA
Facility ID 190915
Ch. 36 (digital) 15 kW

prepared for
Gray Television Licensee, LLC

March, 2019

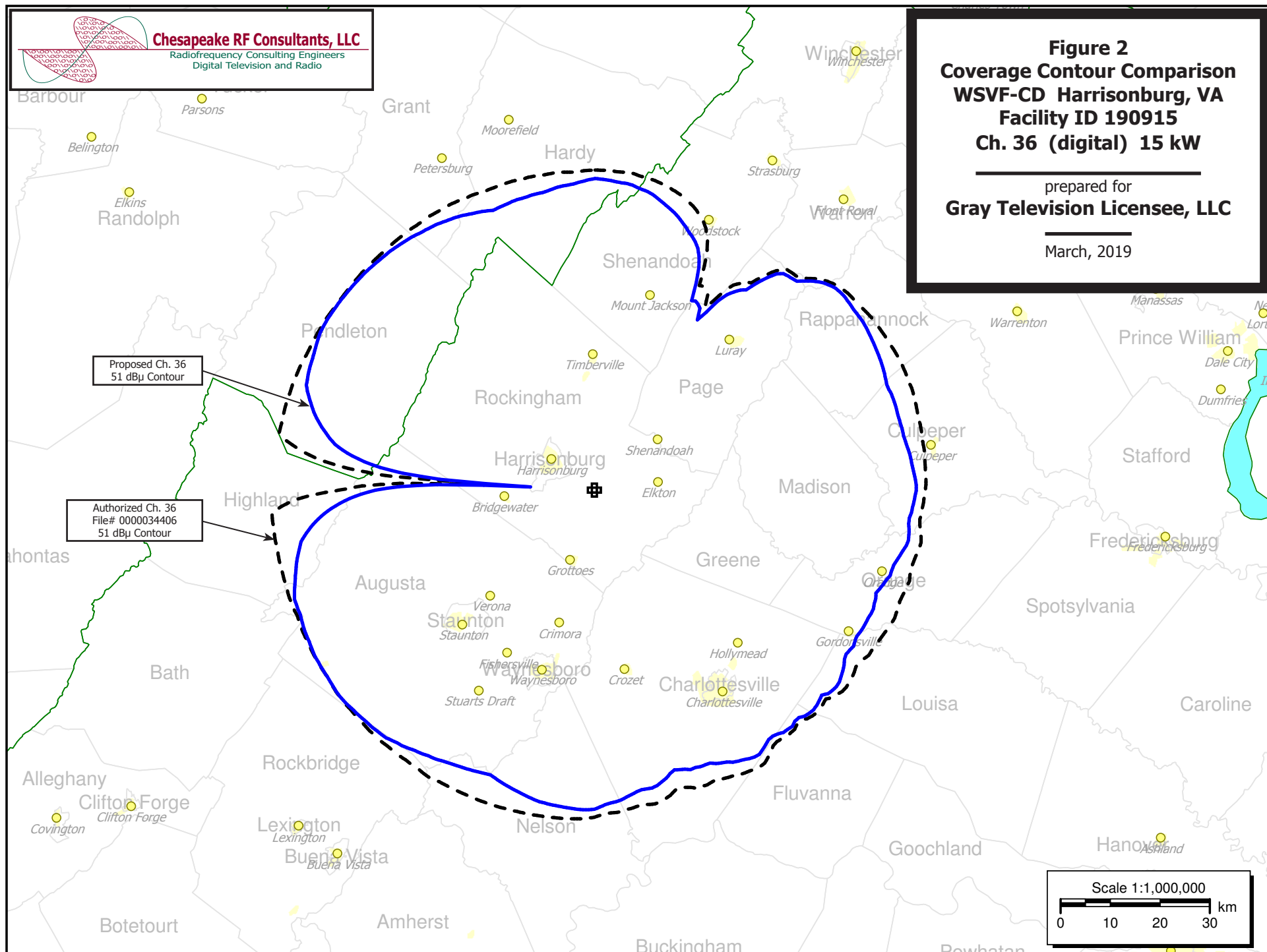


Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 2
Coverage Contour Comparison
WSVF-CD Harrisonburg, VA
Facility ID 190915
Ch. 36 (digital) 15 kW

prepared for
Gray Television Licensee, LLC

March, 2019



Proposed Ch. 36
51 dBμ Contour

Authorized Ch. 36
File# 0000034406
51 dBμ Contour

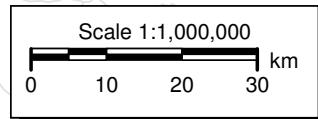


Table 1 WSVF-CD TVStudy Analysis of Proposal (page 1 of 9)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WSVF-CD Mod ERI, Model: Longley-Rice
Start: 2019.03.27 15:22:04

Study created: 2019.03.27 15:22:02

Study build station data: LMS TV 2019-03-25

Proposal: WSVF-CD D36 DC APP HARRISONBURG, VA
File number: WSVF-CD Mod ERI
Facility ID: 190915
Station data: User record
Record ID: 2613
Country: U.S.

Build options:
Protect LPTV records from Class A

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	164.5 km
No	WJAC-TV	D35	DT	CP	JOHNSTOWN, PA	BLANK0000027312	220.7
Yes	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	52.0
No	WUDJ-LD	D35	LD	LIC	CROZET, VA	BLANK0000014021	111.2
Yes	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	157.8
No	WTAP-TV	D35	DT	CP	PARKERSBURG, WV	BLANK0000025208	264.2
No	W35DI-D	D35	LD	CP	ROANOKE, WV	BNPDTL20100514AAS	165.2
Yes	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	159.2
Yes	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	157.8
No	WKAS	D36	DT	CP	ASHLAND, KY	BLANK0000034657	335.3
No	W30CR-D	D36	LD	CP	BISCOE, NC	BLANK0000054531	359.0
No	W24CP-D	D36	LD	CP	DURHAM, NC	BLANK0000052041	282.4
No	WEPX-TV	D36	DT	CP	GREENVILLE, NC	BLANK0000034893	353.4
No	WAXN-TV	D36	LD	LIC	KANNAPOLIS, NC	BLCDT20100630BZK	352.3
No	WUNE-TV	D36	DT	CP	LINVILLE, NC	BLANK0000034440	375.4
No	WBFT-CD	D36	DC	CP	SANFORD, NC	BLANK0000034838	325.7
No	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	356.5
No	WUTV	D36	DT	CP	BUFFALO, NY	BLANK0000034378	474.3
No	WNLO	D36	DT	APP	BUFFALO, NY	BLANK0000064127	474.3
No	WQHS-DT	D36	DT	CP	CLEVELAND, OH	BLANK0000063135	415.8
No	W47AO-D	D36-	DC	CP	BERWICK, PA	BLANK0000034699	363.5
No	W36DO-D	D36	LD	LIC	DARBY, PA	BLDTT20110711ACA	355.2
No	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	271.6
Yes	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	271.6
No	W36BE-D	D36	LD	LIC	STATE COLLEGE, PA	BLDTT20091023AIW	269.1
No	WWLM-CD	D36	DC	CP	WASHINGTON, PA	BLANK0000027840	236.0
No	WFXB	D36	DT	CP	MYRTLE BEACH, SC	BLANK0000027052	468.7
No	WPMC-CD	D36	DC	LIC	MAPPSVILLE, VA	BLANK0000001499	286.3
No	WRID-LD	D36	LD	APP	RICHMOND, VA	BLANK0000054443	141.6
Yes	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	180.2
No	WYSJ-CA	D36	DC	CP	YORKTOWN, VA	BLANK0000034756	251.1
No	W36ER-D	D36	LD	CP	PARKERSBURG, WV	BMPDTL20121001AEO	285.3
No	W43BP	N43-	TX	LIC	CRESAPTOWN, MD	BLTT19981124JI	132.6

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D36
Mask: Full Service
Latitude: 38 23 34.80 N (NAD83)
Longitude: 78 46 11.90 W
Height AMSL: 913.2 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: ERI Ch-36 AZ 20180326-513-4 0.0 deg
Elev Pattn: Generic

Table 1 WSVF-CD TVStudy Analysis of Proposal
(page 2 of 9)



Elec Tilt: 1.75

50.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	11.4 kW	495.9 m	62.7 km
45.0	13.1	392.3	59.5
90.0	11.4	565.2	64.7
135.0	13.0	457.7	62.4
180.0	11.6	543.5	64.2
225.0	13.5	553.4	65.5
270.0	0.486	509.7	44.1
315.0	13.7	484.1	63.5

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 500 m

Distance to Canadian border: 458.3 km

Distance to Mexican border: 2188.5 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 62.5 degrees Distance: 189.4 km

**Proposal is within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 283.3 degrees Distance: 2276.3 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLANK0000034100 CP scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100			
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	51.9 km		
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	52.0		
	WFMY-TV	D35	DT	CP	GREENSBORO, NC	BLANK0000028086	264.2		
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	161.8		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
10093.6	391,856	8293.7	281,563	8078.7	278,444	8081.8	278,444	-0.04	0.00
Undesired				Total IX	Unique IX, before	Unique IX, after			
WSVF-CD	D36	DC	BL	6.0	0	4.0	0		
WSVF-CD	D36	DC	APP	2.0	0		1.0	0	
WFMY-TV	D35	DT	CP	18.2	483	2.0	0	2.0	0
WPXW-TV	D35	DT	CP	208.9	3,119	190.7	2,636	191.7	2,636

Interference to BLANK0000068032 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8
	WRC-TV	D34	DT	CP	WASHINGTON, DC	BLANK0000034340	3.3
	WNJU	D35	DT	CP	LINDEN, NJ	BLANK0000053139	327.7
	WJAC-TV	D35	DT	CP	JOHNSTOWN, PA	BLANK0000027312	224.2
	WFPA-CD	D35	DC	CP	PHILADELPHIA, PA	BLANK0000034670	200.1
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	2.1
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	154.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX

Table 1 WSVF-CD TVStudy Analysis of Proposal
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23917.8	8,081,093	22924.9	8,026,688	22037.8	7,957,119	22039.8	7,957,247	-0.01	-0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
WSVF-CD D36 DC BL	2.0		128	2.0	128				
WSVF-CD D36 DC APP	0.0		0			0.0	0		
WRC-TV D34 DT CP	126.7	12,568		81.8	7,762	81.8	7,762		
WNJU D35 DT CP	9.9	350		2.0	2	2.0	2		
WJAC-TV D35 DT CP	286.9	34,424		238.1	30,176	238.1	30,176		
WFPA-CD D35 DC CP	8.9	114		0.0	0	0.0	0		
WAHU-CD D35 DC CP	484.5	24,250		424.7	18,976	424.7	18,976		
WTTG D36 DT LIC	80.9	8,252		37.0	2,302	37.0	2,302		
WITF-TV D36 DT APP	1.0	32		0.0	0	0.0	0		

Interference to BLANK0000068032 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance		
Desired:	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032			
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km		
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8		
	WRC-TV	D34	DT	CP	WASHINGTON, DC	BLANK0000034340	3.3		
	WNJU	D35	DT	CP	LINDEN, NJ	BLANK0000053139	327.7		
	WJAC-TV	D35	DT	CP	JOHNSTOWN, PA	BLANK0000027312	224.2		
	WFPA-CD	D35	DC	CP	PHILADELPHIA, PA	BLANK0000034670	200.1		
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8		
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	0.0		
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	154.9		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23917.8	8,081,093	22924.9	8,026,688	22073.7	7,959,421	22075.7	7,959,549	-0.01	-0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WSVF-CD D36 DC BL	2.0		128	2.0	128		
WSVF-CD D36 DC APP	0.0		0			0.0	0
WRC-TV D34 DT CP	126.7	12,568		111.7	12,345	111.7	12,345
WNJU D35 DT CP	9.9	350		2.0	2	2.0	2
WJAC-TV D35 DT CP	286.9	34,424		240.1	30,383	240.1	30,383
WFPA-CD D35 DC CP	8.9	114		0.0	0	0.0	0
WAHU-CD D35 DC CP	484.5	24,250		428.7	20,110	428.7	20,110
WTTG D36 DT APP	5.0	26		1.0	0	1.0	0
WITF-TV D36 DT APP	1.0	32		0.0	0	0.0	0

Interference to BLANK0000068032 CP scenario 3

Desired:	Call WPXW-TV	Chan D35	Svc DT	Status CP	City, State MANASSAS, VA	File Number BLANK0000068032	Distance		
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km		
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8		
	WRC-TV	D34	DT	CP	WASHINGTON, DC	BLANK0000034340	3.3		
	WNJU	D35	DT	CP	LINDEN, NJ	BLANK0000053139	327.7		
	WJAC-TV	D35	DT	CP	JOHNSTOWN, PA	BLANK0000027312	224.2		
	WFPA-CD	D35	DC	CP	PHILADELPHIA, PA	BLANK0000034670	200.1		
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8		
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	2.1		
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
23917.8	8,081,093	22924.9	8,026,688	22037.8	7,957,119	22039.8	7,957,247	-0.01	-0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WSVF-CD D36 DC BL	2.0		128	2.0	128		
WSVF-CD D36 DC APP	0.0		0			0.0	0
WRC-TV D34 DT CP	126.7	12,568		81.8	7,762	81.8	7,762
WNJU D35 DT CP	9.9	350		2.0	2	2.0	2
WJAC-TV D35 DT CP	286.9	34,424		238.1	30,176	238.1	30,176
WFPA-CD D35 DC CP	8.9	114		0.0	0	0.0	0
WAHU-CD D35 DC CP	484.5	24,250		424.7	18,976	424.7	18,976
WTTG D36 DT LIC	80.9	8,252		37.0	2,302	37.0	2,302

Interference to BLANK0000068032 CP scenario 4

Table 1 WSVF-CD TVStudy Analysis of Proposal
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	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8
	WRC-TV	D34	DT	CP	WASHINGTON, DC	BLANK0000034340	3.3
	WNJU	D35	DT	CP	LINDEN, NJ	BLANK0000053139	327.7
	WJAC-TV	D35	DT	CP	JOHNSTOWN, PA	BLANK0000027312	224.2
	WFFA-CD	D35	DC	CP	PHILADELPHIA, PA	BLANK0000034670	200.1
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	0.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
23917.8 8,081,093	22924.9 8,026,688	22073.7 7,959,421	22075.7 7,959,549	-0.01 -0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	2.0 128	2.0 128	
WSVF-CD D36 DC APP	0.0 0		0.0 0
WRC-TV D34 DT CP	126.7 12,568	111.7 12,345	111.7 12,345
WNJU D35 DT CP	9.9 350	2.0 2	2.0 2
WJAC-TV D35 DT CP	286.9 34,424	240.1 30,383	240.1 30,383
WFFA-CD D35 DC CP	8.9 114	0.0 0	0.0 0
WAHU-CD D35 DC CP	484.5 24,250	428.7 20,110	428.7 20,110
WTTG D36 DT APP	5.0 26	1.0 0	1.0 0

Interference to BLANK0000058564 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	159.2 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	159.2
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	162.7
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	2.1
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	200.9
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	326.7
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	155.5
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	332.3
	WYSJ-CA	D36	DC	CP	YORKTOWN, VA	BLANK0000034756	216.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
23605.6 8,070,949	22767.6 8,026,439	21701.2 7,918,464	21698.2 7,918,198	0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	167.7 20,973	90.2 14,043	
WSVF-CD D36 DC APP	169.7 21,230		93.2 14,309
WAHU-CD D35 DC CP	2.0 51	0.0 0	0.0 0
WPXW-TV D35 DT CP	47.8 2,704	31.9 1,714	31.9 1,714
WMGM-TV D36 DT LIC	104.5 10,014	39.8 5,872	38.8 5,871
WCBS-TV D36 DT CP	13.9 1,978	3.0 81	3.0 81
WITF-TV D36 DT APP	874.6 85,390	748.3 74,454	748.3 74,454
WFXR D36 DT CP	46.9 3,701	11.0 383	11.0 383
WYSJ-CA D36 DC CP	3.0 23	0.0 0	0.0 0

Interference to BLANK0000058564 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	159.2 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	159.2
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	162.7
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	2.1
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	200.9
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	326.7
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	155.5
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	332.3
	WYSJ-CA	D36	DC	CP	YORKTOWN, VA	BLANK0000034756	216.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
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Table 1 WSVF-CD TVStudy Analysis of Proposal
(page 5 of 9)

23605.6	8,070,949	22767.6	8,026,439	21851.9	7,937,684	21848.9	7,937,418	0.01	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after			
WSVF-CD D36 DC BL	167.7	20,973	111.1	15,116					
WSVF-CD D36 DC APP	169.7	21,230			114.0	15,382			
WAHU-CD D35 DC CP	2.0	51	0.0	0	0.0	0			
WPXW-TV D35 DT CP	47.8	2,704	33.9	1,727	33.9	1,727			
WMGM-TV D36 DT LIC	104.5	10,014	44.8	5,883	43.8	5,882			
WCBS-TV D36 DT CP	13.9	1,978	3.0	81	3.0	81			
WITF-TV D36 DT LIC	694.0	64,917	597.6	55,234	597.6	55,234			
WFXR D36 DT CP	46.9	3,701	11.0	383	11.0	383			
WYSJ-CA D36 DC CP	3.0	23	0.0	0	0.0	0			

Interference to BLANK0000068634 APP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	202.8
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	327.7
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	154.9
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	331.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
24217.7	8,105,998	23187.2	8,049,942	22037.1	7,946,357	22033.1 7,946,170	0.02 0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WSVF-CD D36 DC BL	231.2	27,125	142.8	19,021			
WSVF-CD D36 DC APP	233.1	27,017			146.8	19,208	
WAHU-CD D35 DC CP	2.0	2	1.0	0	1.0	0	
WMGM-TV D36 DT LIC	85.6	3,072	23.9	684	23.9	684	
WCBS-TV D36 DT CP	8.9	318	2.0	63	2.0	63	
WITF-TV D36 DT APP	956.5	83,580	816.3	73,414	817.3	73,464	
WFXR D36 DT CP	61.9	3,396	7.0	84	7.0	84	

Interference to BLANK0000068634 APP scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	157.8 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	157.8
	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	161.8
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	202.8
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	327.7
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	154.9
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	331.3
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
24217.7	8,105,998	23187.2	8,049,942	22202.8	7,966,568	22197.9 7,966,348	0.02 0.00

Undesired		Total IX		Unique IX, before		Unique IX, after	
WSVF-CD D36 DC BL	231.2	27,125	161.7	20,614			
WSVF-CD D36 DC APP	233.1	27,017			166.6	20,834	
WAHU-CD D35 DC CP	2.0	2	1.0	0	1.0	0	
WMGM-TV D36 DT LIC	85.6	3,072	28.9	1,010	28.9	1,010	
WCBS-TV D36 DT CP	8.9	318	2.0	63	2.0	63	
WITF-TV D36 DT LIC	755.9	59,902	650.5	53,203	652.5	53,286	
WFXR D36 DT CP	61.9	3,396	9.0	94	9.0	94	

Interference to BLANK0000039358 LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	271.6 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	271.6

Table 1 WSVF-CD TVStudy Analysis of Proposal
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WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	154.9
WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	155.5
WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	225.3
WUTV	D36	DT	CP	BUFFALO, NY	BLANK0000034378	295.8
WNLO	D36	DT	APP	BUFFALO, NY	BLANK0000064127	295.8
WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	244.7
WSPX-TV	D36	DT	CP	SYRACUSE, NY	BLANK0000029579	335.9
W47AO-D	D36-	DC	CP	BERWICK, PA	BLANK0000034699	91.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
19485.5 2,409,697	17125.1 2,207,263	14858.2 2,010,345	14858.2 2,010,345	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	1.0 27	0.0 0	
WSVF-CD D36 DC APP	1.0 27		0.0 0
WPXW-TV D35 DT CP	12.8 1,595	1.0 134	1.0 134
WTTG D36 DT LIC	1811.9 159,951	1291.2 125,950	1291.2 125,950
WMGM-TV D36 DT LIC	254.5 25,365	25.0 10,283	25.0 10,283
WUTV D36 DT CP	17.9 374	0.0 0	0.0 0
WNLO D36 DT APP	17.9 374	0.0 0	0.0 0
WCBS-TV D36 DT CP	327.3 25,793	75.0 7,912	75.0 7,912
WSPX-TV D36 DT CP	2.0 18	0.0 0	0.0 0
W47AO-D D36- DC CP	603.1 30,776	279.2 13,309	279.2 13,309

Interference to BLANK0000039358 LIC scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	271.6 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	271.6
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	154.9
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	154.9
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	225.3
	WUTV	D36	DT	CP	BUFFALO, NY	BLANK0000034378	295.8
	WNLO	D36	DT	APP	BUFFALO, NY	BLANK0000064127	295.8
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	244.7
	WSPX-TV	D36	DT	CP	SYRACUSE, NY	BLANK0000029579	335.9
	W47AO-D	D36-	DC	CP	BERWICK, PA	BLANK0000034699	91.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
19485.5 2,409,697	17125.1 2,207,263	14862.0 2,023,168	14862.0 2,023,168	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	1.0 27	0.0 0	
WSVF-CD D36 DC APP	1.0 27		0.0 0
WPXW-TV D35 DT CP	12.8 1,595	0.0 0	0.0 0
WTTG D36 DT APP	1804.9 150,193	1287.3 113,127	1287.3 113,127
WMGM-TV D36 DT LIC	254.5 25,365	32.0 6,727	32.0 6,727
WUTV D36 DT CP	17.9 374	0.0 0	0.0 0
WNLO D36 DT APP	17.9 374	0.0 0	0.0 0
WCBS-TV D36 DT CP	327.3 25,793	77.0 10,117	77.0 10,117
WSPX-TV D36 DT CP	2.0 18	0.0 0	0.0 0
W47AO-D D36- DC CP	603.1 30,776	279.3 13,349	279.3 13,349

Interference to BLANK0000039358 LIC scenario 3

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	271.6 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	271.6
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	154.9
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	155.5
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	225.3
	WUTV	D36	DT	CP	BUFFALO, NY	BLANK0000034378	295.8
	WNLO	D36	DT	APP	BUFFALO, NY	BLANK0000064127	295.8
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	244.7
	W47AO-D	D36-	DC	CP	BERWICK, PA	BLANK0000034699	91.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
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Table 1 WSVF-CD TVStudy Analysis of Proposal
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19485.5	2,409,697	17125.1	2,207,263	14858.2	2,010,345	14858.2	2,010,345	0.00	0.00
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Undesired		Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	1.0	27	0.0	0
WSVF-CD D36 DC APP	1.0	27		0.0
WPXW-TV D35 DT CP	12.8	1,595	1.0	134
WTTG D36 DT LIC	1811.9	159,951	1291.2	125,950
WMGM-TV D36 DT LIC	254.5	25,365	25.0	10,283
WUTV D36 DT CP	17.9	374	0.0	0
WNLO D36 DT APP	17.9	374	0.0	0
WCBS-TV D36 DT CP	327.3	25,793	75.0	7,912
W47AO-D D36- DC CP	603.1	30,776	279.2	13,309

Interference to BLANK0000039358 LIC scenario 4

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WITF-TV	D36	DT	LIC	HARRISBURG, PA	BLANK0000039358	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	271.6 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	271.6
	WPXW-TV	D35	DT	CP	MANASSAS, VA	BLANK0000068032	154.9
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	154.9
	WMGM-TV	D36	DT	LIC	WILDWOOD, NJ	BLANK0000035355	225.3
	WUTV	D36	DT	CP	BUFFALO, NY	BLANK0000034378	295.8
	WNLO	D36	DT	APP	BUFFALO, NY	BLANK0000064127	295.8
	WCBS-TV	D36	DT	CP	NEW YORK, NY	BLANK0000033867	244.7
	W47AO-D	D36-	DC	CP	BERWICK, PA	BLANK0000034699	91.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
19485.5	2,409,697	17125.1	2,207,263	14862.0
				2,023,168
				14862.0
				2,023,168
				0.00
				0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	1.0	27	0.0	0
WSVF-CD D36 DC APP	1.0	27		0.0
WPXW-TV D35 DT CP	12.8	1,595	0.0	0
WTTG D36 DT APP	1804.9	150,193	1287.3	113,127
WMGM-TV D36 DT LIC	254.5	25,365	32.0	6,727
WUTV D36 DT CP	17.9	374	0.0	0
WNLO D36 DT APP	17.9	374	0.0	0
WCBS-TV D36 DT CP	327.3	25,793	77.0	10,117
W47AO-D D36- DC CP	603.1	30,776	279.3	13,349

Interference to BLANK0000027724 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	180.2 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	180.2
	WFMY-TV	D35	DT	CP	GREENSBORO, NC	BLANK0000028086	150.1
	WAHU-CD	D35	DC	CP	CHARLOTTEVILLE, VA	BLANK0000034100	171.4
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	332.3
	WKAS	D36	DT	CP	ASHLAND, KY	BLANK0000034657	258.2
	WEPX-TV	D36	DT	CP	GREENVILLE, NC	BLANK0000034893	315.8
	WUNE-TV	D36	DT	CP	LINVILLE, NC	BLANK0000034440	196.3
	WBFT-CD	D36	DC	CP	SANFORD, NC	BLANK0000034838	209.6
	WFXB	D36	DT	CP	MYRTLE BEACH, SC	BLANK0000027052	345.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
38852.6	1,431,370	32909.2	1,276,249	31077.6
				1,225,677
				31059.4
				1,223,205
				0.06
				0.20

Undesired		Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	347.9	6,568	299.4	5,494
WSVF-CD D36 DC APP	369.1	8,792		317.5
WFMY-TV D35 DT CP	264.6	12,924	79.5	2,887
WAHU-CD D35 DC CP	32.4	523	19.3	127
WTTG D36 DT LIC	115.3	3,303	49.6	1,448
WKAS D36 DT CP	57.7	692	57.7	692
WEPX-TV D36 DT CP	156.9	4,033	25.2	697
WUNE-TV D36 DT CP	1237.3	37,429	933.4	24,670
WBFT-CD D36 DC CP	21.1	804	1.0	142

Table 1 WSVF-CD TVStudy Analysis of Proposal
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WFXB D36 DT CP 68.3 1,666 3.0 231 3.0 231

Interference to BLANK0000027724 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	
Undesireds:	WSVF-CD	D36	DC	BL	HARRISONBURG, VA	DTVBL190915	180.2 km
	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	180.2
	WFMY-TV	D35	DT	CP	GREENSBORO, NC	BLANK0000028086	150.1
	WAHU-CD	D35	DC	CP	CHARLOTTEVILLE, VA	BLANK0000034100	171.4
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	331.3
	WKAS	D36	DT	CP	ASHLAND, KY	BLANK0000034657	258.2
	WEPX-TV	D36	DT	CP	GREENVILLE, NC	BLANK0000034893	315.8
	WUNE-TV	D36	DT	CP	LINVILLE, NC	BLANK0000034440	196.3
	WBFT-CD	D36	DC	CP	SANFORD, NC	BLANK0000034838	209.6
	WFXB	D36	DT	CP	MYRTLE BEACH, SC	BLANK0000027052	345.6
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
38852.6 1,431,370		32909.2 1,276,249		31079.6 1,225,384		31060.4 1,222,912	0.06 0.20

Undesired	Total IX	Unique IX, before	Unique IX, after
WSVF-CD D36 DC BL	347.9 6,568	300.4 5,581	
WSVF-CD D36 DC APP	369.1 8,792		319.6 8,053
WFMY-TV D35 DT CP	264.6 12,924	79.5 2,887	79.5 2,887
WAHU-CD D35 DC CP	32.4 523	16.2 273	16.2 273
WTTG D36 DT APP	114.3 3,813	47.6 1,741	46.6 1,741
WKAS D36 DT CP	57.7 692	57.7 692	55.7 692
WEPX-TV D36 DT CP	156.9 4,033	23.2 297	24.2 359
WUNE-TV D36 DT CP	1237.3 37,429	935.5 24,708	934.4 24,708
WBFT-CD D36 DC CP	21.1 804	1.0 142	1.0 142
WFXB D36 DT CP	68.3 1,666	3.0 231	3.0 231

Interference to proposal scenario 1
0.85% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	
Undesireds:	WAHU-CD	D35	DC	CP	CHARLOTTEVILLE, VA	BLANK0000034100	52.0 km
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	159.2
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	271.6
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	180.2
Service area		Terrain-limited		IX-free		Percent IX	
11780.9 494,761		7412.2 297,787		7258.5 295,250		2.07 0.85	

Undesired	Total IX	Unique IX	Prcnt Unique IX
WAHU-CD D35 DC CP	11.1 1,003	2.0 0	0.03 0.00
WTTG D36 DT LIC	64.3 1,131	38.1 23	0.51 0.01
WITF-TV D36 DT APP	2.0 0	0.0 0	0.00 0.00
WFXR D36 DT CP	107.5 1,511	84.4 1,406	1.14 0.47

Interference to proposal scenario 2
**MX: 0.86% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	
Undesireds:	WAHU-CD	D35	DC	CP	CHARLOTTEVILLE, VA	BLANK0000034100	52.0 km
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	157.8
	WITF-TV	D36	DT	APP	HARRISBURG, PA	BLANK0000035782	271.6
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	180.2
Service area		Terrain-limited		IX-free		Percent IX	
11780.9 494,761		7412.2 297,787		7259.5 295,226		2.06 0.86	

Undesired	Total IX	Unique IX	Prcnt Unique IX
WAHU-CD D35 DC CP	11.1 1,003	3.0 0	0.04 0.00
WTTG D36 DT APP	57.2 1,069	37.1 47	0.50 0.02

Table 1 WSVF-CD TVStudy Analysis of Proposal
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WITF-TV D36 DT APP	2.0	0	0.0	0	0.00	0.00
WFXR D36 DT CP	107.5	1,511	89.4	1,492	1.21	0.50

Interference to proposal scenario 3
0.85% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	
Undesireds:	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	52.0 km
	WTTG	D36	DT	LIC	WASHINGTON, DC	BLANK0000058564	159.2
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	180.2

	Service area		Terrain-limited		IX-free		Percent IX
	11780.9	494,761	7412.2	297,787	7258.5	295,250	2.07 0.85

Undesired		Total IX		Unique IX	Prcnt Unique IX
WAHU-CD D35 DC CP	11.1	1,003	2.0	0	0.03 0.00
WTTG D36 DT LIC	64.3	1,131	38.1	23	0.51 0.01
WFXR D36 DT CP	107.5	1,511	86.4	1,406	1.17 0.47

Interference to proposal scenario 4
**MX: 0.86% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WSVF-CD	D36	DC	APP	HARRISONBURG, VA	WSVF-CD Mod ERI	
Undesireds:	WAHU-CD	D35	DC	CP	CHARLOTTESVILLE, VA	BLANK0000034100	52.0 km
	WTTG	D36	DT	APP	WASHINGTON, DC	BLANK0000068634	157.8
	WFXR	D36	DT	CP	ROANOKE, VA	BLANK0000027724	180.2

	Service area		Terrain-limited		IX-free		Percent IX
	11780.9	494,761	7412.2	297,787	7259.5	295,226	2.06 0.86

Undesired		Total IX		Unique IX	Prcnt Unique IX
WAHU-CD D35 DC CP	11.1	1,003	3.0	0	0.04 0.00
WTTG D36 DT APP	57.2	1,069	37.1	47	0.50 0.02
WFXR D36 DT CP	107.5	1,511	91.4	1,492	1.23 0.50

**Channel and
Facility
Information**

Section	Question	Response
Proposed Community of License	Facility ID	190915
	State	Virginia
	City	HARRISONBURG
	DCA Channel	36

**Antenna Location
Data**

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	No
	ASR Number	
Coordinates (NAD83)	Latitude	38° 23' 34.8" N+
	Longitude	078° 46' 11.9" W-
	Structure Type	LTOWER-Lattice Tower
	Overall Structure Height	24.4 meters
	Support Structure Height	20.7 meters
	Ground Elevation (AMSL)	890.6 meters
Antenna Data	Height of Radiation Center Above Ground Level	22.6 meters
	Height of Radiation Center Above Mean Sea Level	913.2 meters
	Effective Radiated Power	15.0 kW

Antenna
Technical Data

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	ETU4U7-ETP4O-34/36
	Rotation	0 degrees
	Electrical Beam Tilt	1.75
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
Elevation Radiation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	
	Out-of-Channel Emission Mask:	Full Service

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	0.870	90	0.870	180	0.880	270	0.180
10	0.810	100	0.810	190	0.800	280	0.390
20	0.660	110	0.660	200	0.640	290	0.810
30	0.730	120	0.730	210	0.730	300	0.970
40	0.900	130	0.900	220	0.910	310	0.980
50	0.950	140	0.940	230	0.990	320	0.930
60	0.830	150	0.820	240	0.990	330	0.830
70	0.710	160	0.720	250	0.930	340	0.710
80	0.750	170	0.770	260	0.660	350	0.750

Additional Azimuths

Degree	V _A
47	0.950
306	0.990
273	0.010
235	1.000
138	0.950

**Construction
Permit
Certifications**

Section	Question	Response
Post-Incentive Auction Expedited Processing	It will operate on the DTV channel for this station as established in the post-incentive auction channel reassignment public notice.	Yes
	It will operate post-incentive auction facilities that do not expand the noise-limited service contour in any direction beyond that established by the post-incentive auction channel reassignment public notice.	No
	It will operate post-incentive auction facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the post-incentive auction channel reassignment public notice.	
	The antenna structure to be used by this facility has been registered by the Commission and will not require re-registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely affect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	Yes
Environmental Effect	Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See Section 1.1306 of 47 C.F.R.)	No
Broadcast Facility	The proposed facility complies with all of the following applicable rule sections. 47 C.F.R. Sections 74.709, 74.793 (e), 74.793(f), 74.793(g), 74.793(h)	Yes